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U.S. Serial No. 09/653,719

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Family Number: P2000J080

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A process for the formation of a dispersed active metal (DAM) catalyst for conducting hydrogenation reactions comprising:

a) forming a slurry of particulate ^{Co}DAM catalyst characterized by the capacity to form more than one oxide of the DAM in a suitable liquid;

b) contacting the particulate DAM catalyst in the slurry with an oxidizing agent at temperatures below 200°C to form an oxidized catalyst precursor comprising said metals and at least one of hydroxides thereof and oxides thereof, wherein at least a portion of said hydroxides and oxides are in the lower oxidation state of the metals;

c) adding to said oxidized catalyst precursor a solution in a suitable solvent of one or more reducible salts of promoter metals selected from the group consisting of rhenium, ruthenium, palladium, iron and cobalt;

d) recovering and drying said oxidized catalyst precursor and said salt;
and

e) forming an active catalyst by treating the oxidized catalyst precursor with hydrogen at elevated temperature, wherein said one or more salts will be reduced during the hydrogen treatment to form the metal.

2. (Original) A process in accordance with Claim 1, wherein the oxidized catalyst precursor is recovered and dried prior to being combined with said solution in step c).

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3. (Original) A process in accordance with Claim 2, wherein said one or more salts is soluble in water and said solution in step c) is an aqueous solution.

4. (Currently amended) A process in accordance with Claim 1, wherein the fluid liquid forming the slurry comprises water and the oxidized catalyst precursor includes hydroxides of the dispersed active metals.

5. (Original) A process in accordance with Claim 4, wherein said one or more salts is soluble in water and steps b) and c) are carried out simultaneously.

6. (Original) A process in accordance with Claim 5, wherein said salts are nitrates.

7. (Original) A process in accordance with Claim 1, wherein step b) is carried out at a temperature below 100°C.

8. (Previously amended) A process in accordance with Claim 1, wherein in step d) said oxidized catalyst precursor and said one or more salts is dried in air at a temperature above 100°C for at least one hour.

9. (Previously amended) A process in accordance with Claim 1, wherein in step d) said oxidized catalyst precursor and said one or more salts is dried under an inert atmosphere.

10. (Currently amended) A process in accordance with Claim 1, wherein said promoter metal is rhenium and said salt is ammonium perrhenate.

11. (Currently amended) A process in accordance with Claim 1, wherein said promoter metal is ruthenium and said salt is ruthenium trichloride.

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12. (Currently amended) A process in accordance with Claim 1, wherein said promoter metal is cobalt and said salt is cobalt nitrate.

13. (Currently amended) A process in accordance with Claim 1, wherein step e) is heating sin hydrogen to a temperature of about 400° for a time sufficient to form the promoter metals from said one or more reducible salts thereof.

14. (Previously amended) A catalyst formed by the process of Claim 1.

15. (Previously amended) A catalyst in accordance with Claim 14, wherein said promoter metal is rhenium.

16. (Previously amended) A catalyst in accordance with Claim 14, wherein said promoter metal is ruthenium.

17. (Previously amended) A catalyst in accordance with Claim 14, wherein said promoter metal is cobalt.

18. (Cancelled)

19. (Cancelled)